

**THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE
PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:**

1. An oligonucleotide inhibitor, or an analogue thereof, comprising from about 7 to about 100 nucleotides complementary to a mammalian MBD2/demethylase mRNA, wherein said oligonucleotide inhibitor, or analogue thereof, inhibits expression of a mammalian MBD2/demethylase gene.
2. The oligonucleotide inhibitor according to claim 1 that is an antisense oligonucleotide.
3. The oligonucleotide inhibitor according to claim 1 that is a siRNA molecule.
4. The oligonucleotide inhibitor according to claim 1 that is a ribozyme.
5. An oligonucleotide inhibitor, or an analogue thereof, of less than about 100 nucleotides in length comprising at least 7 consecutive nucleotides from the sequence as set forth in any one of SEQ ID NOs: 5, 6, 7, 8, 9, 10, 11 or 12.
6. The oligonucleotide inhibitor according to any one of claims 1 to 5 further comprising one or more phosphorothioate backbone linkages.
7. The oligonucleotide inhibitor according to any one of claims 1 to 6 further comprising one or more 2'-O-methyl modified bases.
8. A vector comprising the oligonucleotide inhibitor according to any one of claims 1 to 5.
9. A host cell transformed or transfected with the oligonucleotide according to any one of claims 1 to 5, or the vector according to claim 8.

10. A pharmaceutical composition comprising the oligonucleotide inhibitor according to any one of claims 1 to 7, or the vector according to claim 8.
11. A use of the oligonucleotide inhibitor according to any one of claims 1 to 7, or the vector according to claim 8, in the manufacture of a medicament.
12. A use of an oligonucleotide inhibitor, or an analogue thereof, comprising from about 7 to about 100 nucleotides complementary to a mammalian MBD2/demethylase mRNA, to inhibit the growth of cancer cells in a mammal in need thereof, wherein said oligonucleotide inhibitor, or analogue thereof, inhibits expression of a mammalian MBD2/demethylase gene.
13. A use of an oligonucleotide inhibitor, or an analogue thereof, comprising from about 7 to about 100 nucleotides complementary to a mammalian MBD2/demethylase mRNA, to inhibit the proliferation of cancer cells in a mammal in need thereof, wherein said oligonucleotide inhibitor, or analogue thereof, inhibits expression of a mammalian MBD2/demethylase gene.
14. A use of an oligonucleotide inhibitor, or an analogue thereof, comprising from about 7 to about 100 nucleotides complementary to a mammalian MBD2/demethylase mRNA, in the treatment of cancer in a mammal, wherein said oligonucleotide inhibitor, or analogue thereof, inhibits expression of a mammalian MBD2/demethylase gene.
15. The use according to claim 14, wherein said cancer is lung cancer or colorectal cancer.
16. A use of an oligonucleotide inhibitor, or an analogue thereof, comprising from about 7 to about 100 nucleotides complementary to a mammalian MBD2/demethylase mRNA, in the prophylactic treatment of a mammal to prevent a familial cancer, wherein said oligonucleotide inhibitor, or analogue thereof, inhibits expression of a mammalian MBD2/demethylase gene.

17. The use according to any one of claims 12 to 15, wherein said oligonucleotide inhibitor comprises at least 7 consecutive nucleotides from the sequence as set forth in any one of SEQ ID NOs: 5, 6, 7, 8, 9, 10, 11 or 12.
18. The use according to any one of claims 12 to 16, wherein said mammal is a human.
19. The use according to any one of claims 12 to 17, wherein said oligonucleotide inhibitor is used in combination with one or more anti-cancer therapeutics.
20. A method of identifying target genes for cancer therapy comprising treating a cell with one or more oligonucleotide inhibitor of a mammalian MBD2/demethylase gene, analysing gene expression in the treated cell and comparing the gene expression with gene expression in a control cell not treated with said oligonucleotide inhibitor, wherein a difference in gene expression between the treated cell and the control cell is indicative of one or more target gene.
21. The method according to claim 19, wherein analysing gene expression is conducted by microarray analysis.